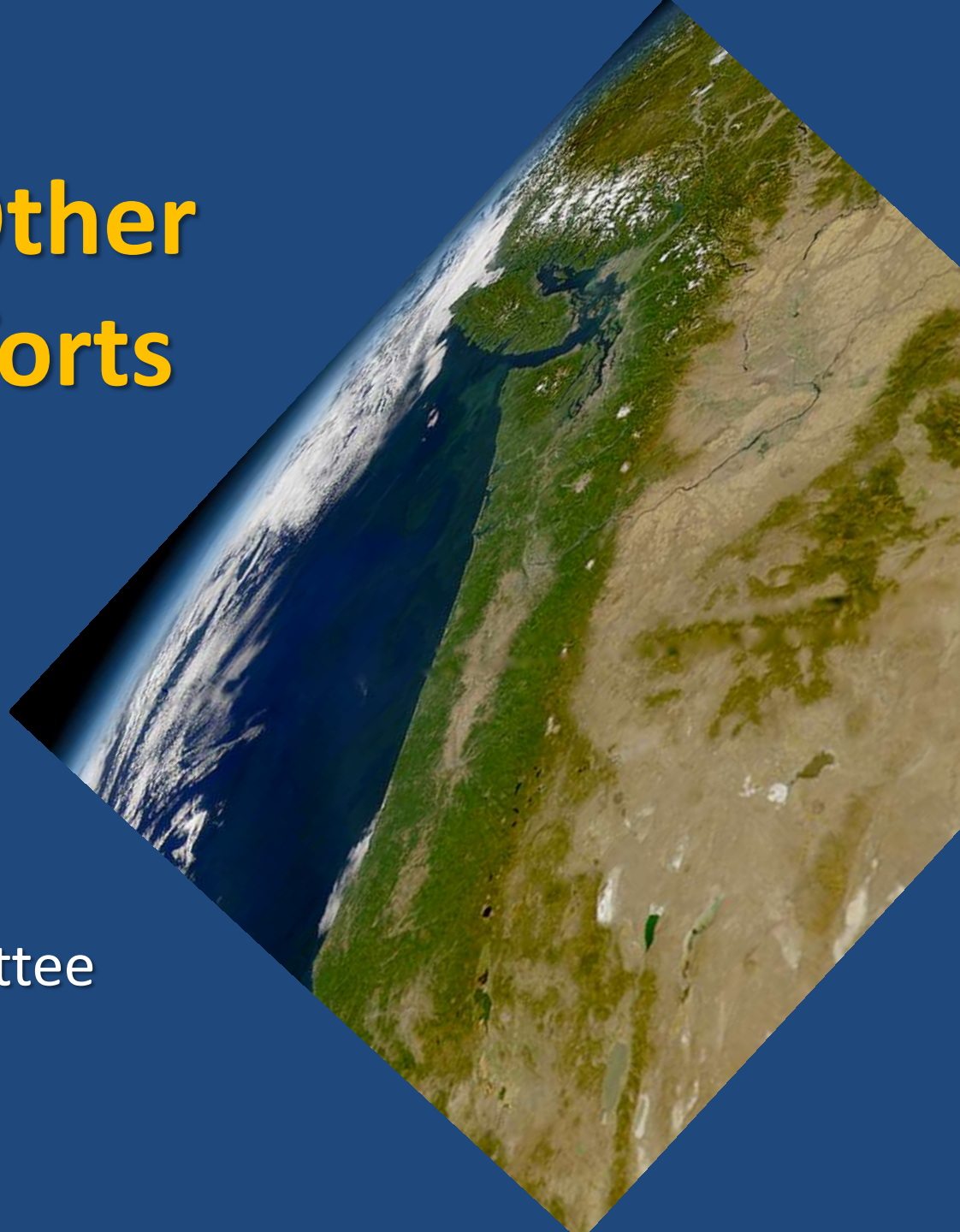


Priorities - Other Regional Efforts

Science/TEK Subcommittee
February 29, 2012



NW Climate Science Center

FY 2012 Annual Science Work Plan - RFP:

- **Response of hydrologic systems** to future climate –snow hydrology, alpine glaciers, streams, lakes, groundwater systems, wetlands, water temp. & quality, extreme events
- **Vulnerability** of species, populations, and ecosystems to climate change – terrestrial, aquatic, near-shore marine ecosystems
- **Aquatic integrity** related to climate change – overall condition & quality native fish communities, watershed functions, full array ecosystem processes natural waters
- **Disturbance** due to climate change – fire, invasive species, diseases, pathogens, epidemic insect infestations
- Climate change **monitoring and observation systems** – inventory existing networks & evaluate their capacity understand response physical & biological systems to climate change, and inform adaptation efforts

Alaska Climate Science Center

Focus FY 12 Activities (Fall ACCER mtg):

- Coastal and coastal wetland processes
- Hydrology: Water resources
- Hydrology: Water chemistry
- Downscaling and climate data/monitoring issues
- Improved science communication involving local communities
- Human Impacts: Food security, water security, hazards and the built environment

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Additional Guidance from C4 and priorities:

- Coastal issues: storm-induced erosion & impacts coastal habitats
- Linking water resources, water chemistry and Alaska's glaciers
- Develop standardized methods for applications downscaled products
- Make downscaled datasets more widely available for use in resource management community
- Need to collect more baseline data related to physical environment
- Need for data collection standards and improved data management

Climate Impacts Research Consortium (CIRC) (NOAA RISA)

Information needs from 2011 Survey Results:

- **Downscaling** : different spatial/temporal scales, range of variables
- **Water**: water quality & quantity, hydropower, species
- **Snow & storms**: related to water issues; frequency and intensity
- **Ecological impacts**: species specific/habitats
- **Coastal issues**: Sea level rise, flooding, estuaries, erosion
- **Management tools**: easily retrievable data & information
- **Improved science**: reliability models, uncertainty explained
- **Forecasts**: improved reliability
- **Climate impacts**: specific needs forestry, agriculture, public health, economics

Valuable CIRC Activities (from surveys)

- Integrated scenarios future climate, vegetation, & hydrology
- Improved models for projecting futures climates for specific locations
- User-friendly tools for generating climate projections for specific locations
- Clearinghouse of easily accessible climate information
- Outreach programs – help managers make informed decisions about climate change impacts
- Improve understanding of economic impacts of adaptation strategies
- Improve understanding of climate impacts and adaptation strategies for communities
- Outreach programs – management practices to reduce impacts of climate change
- Improve understanding of laws & policies that influence social impacts of climate change

Alaska Coastal Rainforest Center

Goals:

1. Lead in education and professional training
2. Conduct and facilitate coastal temperate rainforest research
3. Link local community interests in conservation, management, utilization, and policy
4. Ensure long-term operational & financial stability through strategic management of workforce, funding and governance